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1 Claims

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- 3 1. A method for generating a true random number,
- 4 characterized in that
- 5 the true random number is generated on the basis of a
- 6 stochastically distributed duration (T) of an electrical charge
- 7 reversal process.

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- 9 2. The method as claimed in claim 1,
- 10 characterized in that
- 11 the charge reversal process involves charge reversal of at
- 12 least one memory cell (10).

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- 14 3. The method as claimed in claim 2,
- 15 characterized in that
- 16 at least one memory cell (10) is a memory cell of an EEPROM
- 17 (12).

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- 19 4. The method as claimed in claim 2 or 3,
- 20 characterized in that
- 21 at least one memory cell (10) is a FLASH memory cell.

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- 23 5. The method according to one of the preceding claims,
- 24 characterized in that
- 25 the charge reversal process is performed using a charge pump
- 26 (14).

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- 28 6. The method according to one of the preceding claims,
- 29 characterized in that
- 30 the stochastic duration (T) of the charge reversal process is
- 31 recorded using a counter (16).

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- 33 7. The method according to one of the preceding claims,
- 34 characterized in that

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- 1 it is performed by an embedded system (18), in particular by an
- 2 engine control system (18) of a motor vehicle.

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- 4 8. An apparatus suitable for generating a true random number,
- 5 characterized in that
- 6 it generates the true random number on the basis of a
- 7 stochastically distributed duration (T) of an electrical charge
- 8 reversal process.

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- 10 9. The apparatus as claimed in claim 8,
- 11 characterized in that
- 12 it has at least one memory cell (10) which undergoes electrical
- 13 charge reversal in order to generate the random number.

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- 15 10. The apparatus as claimed in claim 9,
- 16 characterized in that
- 17 at least one memory cell (10) is a memory cell of an EEPROM
- 18 (12).

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- 20 11. The apparatus as claimed in claim 9 or 10,
- 21 characterized in that
- 22 at least one memory cell (10) is a FLASH memory cell.

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- 24 12. The apparatus according to one of the claims 8 to 11,
- 25 characterized in that
- 26 it has a charge pump (14) for performing the charge reversal
- 27 process.

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- 29 13. The apparatus according to one of the claims 8 to 12,
- 30 characterized in that
- 31 it has a counter (16) for recording the stochastically
- 32 distributed duration (T) of the charge reversal process.

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34 14. The apparatus according to one of the claims 8 to 13,

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- 1 characterized in that
- 2 it is an embedded system (18), in particular an engine control
- 3 system (18) of a motor vehicle.

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